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Rural Radio Resource Pack

No 04/2

POULTRY REARING



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The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention between the ACP (African, Caribbean and Pacific) Group of States and the European Union Member States. Since 2000, it has operated within the framework of the ACP-EC Cotonou Agreement.

CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilise information in this area.

Rural radio

Radio remains, despite all the interest in the new ICTs, one of the most important communication tools in ACP rural communities. CTA began supporting rural radio back in 1991. Every year since then we've produced a set of Rural Radio Resource Packs (RRRPs).

Each pack is on a specific topic – anything from crop storage and cassava to small ruminants and soil fertility. The choice of topics depends on what ACP partners suggest. The number of topics covered has now reached 51. Inside each pack are materials for a radio programme on that topic – interviews on cassette or CD, a transcription and a suggested introduction for each interview, technical information on the topic, advice for how the pack can be used and a questionnaire for users to provide feedback to CTA.

You can find most of the RRRP material on CTA's Rural Radio website
<http://ruralradio.cta.int/>.

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CTA

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Poultry Rearing

TECHNICAL INFORMATION

(and suggestions for using RRRPs in the studio)

Introduction

Broadly speaking we can divide small-scale poultry rearing into two main systems. Firstly, there are what are often referred to as 'village chickens'. These are free range birds which scavenge for food during the day, and are usually housed overnight. Secondly, there is the more intensive production of either broilers (for meat) or layers (for eggs), where the birds are kept in specially built houses, sometimes in cages, and provided with feed and water in a controlled way. There are also semi-intensive systems which combine both feeding and scavenging within an enclosure.

Many of the issues that affect poultry rearing apply to both scavenger and intensive systems, for example protecting the birds from disease and predators, ensuring they have sufficient feed and providing appropriate housing. However, the way that farmers achieve these things will differ between the two systems, and therefore it is important to be clear which system you are discussing. Here are some of the issues in more detail.

Village chickens

Housing: Village chickens are usually housed overnight, in order to protect them from cold, bad weather and predators. Chicken houses need to provide adequate ventilation for the birds, but ventilation holes should not allow predators such as snakes and rats an entry point, and should therefore be some distance (at least 1 metre) off the ground. Houses should be designed so that they are easy to clean, and have few places where insect pests such as ticks can hide. A raised house may be easy to clean as chicken droppings will fall through the floor and not build up in the house. The house should be rainproof. Using locally available materials to construct poultry houses is important in reducing costs. The interview *Housing for village hens* contains advice for farmers in constructing appropriate housing for village chickens.

Feed: Village chickens get most of their food from scavenging. However at certain times of year, particularly during the rainy season, food may become scarce. Farmers are therefore encouraged to save some feeds - such as maize bran or soya bean cake - to supplement their chickens' diet during these periods(see *Vaccination for village chickens?*). Supplementing the diet can be done throughout the year as a way of improving productivity. Some farmers will assess what foods their birds are finding themselves, and balance this with supplements, to increase for example the protein, vitamin or mineral content. Earthworms or maggots can be bred as a source of protein, and certain shrubs have leaves that contain valuable vitamin content. Phosphorus from burned bones, and calcium from chalk or sea shells are important for

egg production. *Good feeding for guinea fowl* has advice which also applies to other poultry.

Disease control: While village chickens may have better resistance to diseases than imported exotic birds used in intensive production, the loss of birds to disease is the biggest problem associated with village chicken rearing. Newcastle disease in particular, kills as much as 70 - 80% of unvaccinated village hens each year in developing countries. However vaccination campaigns for village chickens have proved difficult and expensive to organise; poultry owners are very widely spread, making them difficult to reach. And apart from a recent vaccine developed in Australia, vaccines for Newcastle disease have needed to be kept cool, requiring an expensive 'cold chain' of refrigeration equipment. Because of the difficulties, few governments are able to provide vaccination campaigns for village chickens. In Zambia (see *Vaccination for village chickens?*), that task has been handed over to private vets, and farmers are encouraged to team up in order to reduce the costs. In Malawi a three-monthly vaccination programme is being managed by the FAO's Special Programme for Food Security (see *Housing for village hens*).

Apart from vaccination and the use of other preventative or curative medicines, farmers can best protect their poultry flocks from disease by providing suitable housing and feed, by keeping chicken houses and runs clean, and by closely observing their birds' health. If signs of illness are noted, the sick bird should be separated from the rest of the flock immediately, and not returned to the flock until it has recovered. Some farmers use local plants, such as aloes, to make medicines for their birds - see *Meeting the market for indigenous birds*.

Intensive poultry production

Feed: Feed is the biggest input cost for commercial poultry production (between 60-80% of total costs). Obtaining a well-balanced feed at a low cost can greatly improve profitability. While many producers buy commercially mixed poultry feeds, a cheaper option is for poultry producers to mix their own feed using locally available resources, such as by-products from local industries eg breweries, fishing, oil mills, crop processing. Most farmers buy premixed vitamin feeds, since providing the correct quantities of vitamins is important, but difficult if farmers try to mix their own.

Poultry have different nutritional requirements at different stages. Chicks are fed a starter feed, which is high in energy, protein and vitamins. After about 8 weeks they are given a grower feed, which has a lighter nutrient density. Laying hens will be given a different feed with high levels of calcium and phosphorus for egg production. Farmers need to be able to assess the nutritional requirements of their birds and change their feeds accordingly. *A balanced diet for commercial poultry* is a detailed look at feed requirements, and *Intensive care for layers* includes the benefits of home mixing. *Caring for chicks* describes the changing needs of poultry chicks as they grow up.

Disease control by vaccination: Various important poultry diseases can be vaccinated against, including Newcastle disease, infectious bronchitis, Marek's disease and fowl pox. Other diseases such as coccidiosis can be protected against using suitable drugs.

Vaccination schedules must be carefully followed for the vaccination to be effective. Some vaccines are injected, but more commonly vaccines are given in the birds' drinking water. Poultry farmers must know the correct rates of dilution, in order to get the correct amount of vaccine for the number and age of the birds. If not properly handled, vaccines can lose their potency. For example, most Newcastle disease vaccines must be kept cool, and must not be mixed with treated (i.e. chlorinated) water. *Training farmers to tackle Newcastle Disease* describes training given to poultry farmers in The Gambia to keep their poultry flocks healthy, including vaccination against Newcastle disease.

Management methods: Good management also keeps poultry flocks healthy. The 'all-in, all-out' system is a good way of minimising the risk of disease entering a flock. Under this system, once a flock has reached the end of its growing or laying period, the whole flock is sold, and the poultry house is cleaned, disinfected and left to stand empty for at least two weeks before a new flock is introduced.

Young birds are most at risk from diseases carried by older birds. Therefore when a new batch of chicks are brought to a farm, they should be kept in a brooder house at some distance (ideally 100 metres or more), from houses containing adult birds. Farm workers who are looking after the adult birds should not enter the brooder house, as they may carry diseases on their clothing or shoes. Young chicks should never be housed with adult birds. Nor should new birds be introduced to a flock, for example to replace a bird that dies, since this also risks bringing in disease. Sick birds should be removed from the house immediately and, if necessary, destroyed. It is better to lose one bird than risk infecting the whole flock. *Keeping poultry houses free of disease* contains many suggestions for how farmers can prevent the spread of disease.

Management of chicks: Farmers will normally buy day-old chicks from a hatchery. These are kept in a brooding house, on bedding material known as litter, at a correct 'stocking density'. The chicks need to be kept warm and dry, for example by use of lamps or heaters, fed on a protein rich diet and have clean drinking water. They are normally kept under lights for the first few weeks, to maximise their feed intake and growth. They should be vaccinated against diseases, and protected against contamination from adult birds. Some farmers de-beak their chicks to prevent them from pecking each other. Cannibalism in chickens can be a problem, particularly in hot weather. *Caring for chicks* gives more information.

Using this RRRP in the studio

Poultry rearing is a subject that will have very wide appeal among your listeners, as poultry are the most popular type of livestock in most countries, particularly among poorer families. And while the interviews in this pack are drawn from across West, East, Central and Southern Africa, many of the issues and information they contain will be relevant to listeners in your country. As already explained, it is important that any discussion of poultry rearing is directed either at village poultry keepers (largely free range, scavenger chickens of local varieties), or at commercial, intensive producers, keeping large numbers of broilers or layers. Here follow some suggested subjects you could cover for both systems, and advice on how the interviews in the pack could help you.

Village poultry

How can vaccination for village chickens be managed?

This is a question that will interest many of your listeners; Newcastle disease in particular, kills a high proportion of village chickens each year, but vaccination campaigns have proved difficult to manage. Does the answer lie in training and assisting farmers to do their own vaccination, or handing responsibility to the private sector? A discussion on this could be supported by the interviews *Vaccination for village chickens?* and *Training farmers to tackle Newcastle Disease*.

Improving the diet of scavenger poultry for better production.

Scavenging birds may not be able to find all the nutrients they need for health and good growth. Many farmers may wish to learn about how they can complement their scavenged diet with cheap, locally available feedstuffs. You may wish to invite listener farmers to phone in with suggestions. Several interviews in this pack contain ideas for local feeds, including *Good feeding for guinea fowl* and *Meeting the market for indigenous birds*.

How can poultry house design improve health, productivity and safety?

Properly designed and built housing for village chickens protects them from bad weather and predators, and if houses are easy to clean, diseases are less likely to occur. How to build a suitable house for poultry is a difficult subject for radio to tackle, but you could raise the important issues with an invited guest - perhaps an extension officer with expertise in village poultry. *Housing for village hens* contains some good points about design.

Cross-breeding to improve productivity from local birds.

Selecting the best qualities in local poultry species for cross-breeding can produce significant increases in production and greater tolerance of diseases and environmental conditions. Listeners may be interested to hear from local poultry farmers who have managed to cross-breed their birds successfully. *Cross-breeding local chickens* could be used to introduce the subject.

Intensive poultry

How to maintain feed quality while reducing cost?

Since feed is by far the biggest cost in intensive poultry production, finding ways of reducing that cost while maintaining nutritional quality is an important subject. The interview *A balanced diet for commercial poultry* is a good place to start in discussing this, and could be complemented by a local poultry farmer/expert to give information on what sources of feed are available for farmers in urban and rural areas in your country. The farmer in *Intensive care for layers* has a side business mixing and selling feed, in order to make his feed production cost-effective.

Intensive poultry - continued

How to protect poultry from disease using vaccination and drugs?

A vital subject for poultry farmers, and hopefully one that most if not all commercial farmers will be aware of. However there may be important issues, for example the availability of drugs, the level of expertise among farmers, and how to make vaccination as cost-effective as possible, that you could invite an animal health expert to discuss. Listeners may well wish to phone in questions to an expert in the studio. *Intensive care for layers* and/or *Training farmers to tackle Newcastle Disease* could be used to introduce the subject.

How to prevent disease spreading in flocks by good management?

A subject on which there is likely to be a very wide range of knowledge. Some farmers, such as Wilfred Nkumbuh in *Keeping poultry houses free of disease*, follow extremely strict management rules to reduce opportunities for disease to enter flocks. Others may be less strict, and are likely to suffer more disease outbreaks. An excellent subject for a studio-based interview or discussion.

CTA

Rural Radio Resource Pack

2004/2

Poultry Rearing

Contents	Duration
<i>Intensive care for layers</i> Mr. Wainaina, who keeps over 5000 layers, explains the management systems he uses on his farm in Moisbridge, Kenya.	6'46"
<i>A balanced diet for commercial poultry</i> Dr Rashid Mwanga of Tanzania Poultry Farm Ltd explains the important factors in providing cost-effective and healthy feed to chickens.	5'35"
<i>Keeping poultry houses free of disease</i> Wilfred Allo Nkumbuh explains to Martha Chindong how, by keeping strict rules, he prevents the spread of disease on his poultry farm in Cameroon.	4'34"
<i>Housing for village hens</i> Maurice Munyenembe, and expert with the FAO in Malawi, explains the important principles in building appropriate housing for village chickens.	4'55"
<i>Training farmers to tackle Newcastle Disease</i> Mr. Demba Touray of The Gambia's Department of Livestock Services describes the work of the department to control Newcastle disease.	4'34"
<i>Caring for chicks</i> Bob Akinwumi, who keeps layer hens, describes the feeding and disease control methods he uses in raising day old chicks.	5'36"
<i>Vaccination for village chickens</i> David Daka of the Zambia Institute of Animal Health discusses how small scale farmers can manage Newcastle disease vaccination for their poultry flocks.	5'22"
<i>Good feeding for guinea fowl</i> Patrick Mphaka reports on a project that is introducing guinea fowl to farming communities in Malawi.	5'00"
<i>Cross-breeding local chickens</i> Childwell Nyirenda of the Zambian Ministry of Agriculture explains how cross-breeding can improve productivity in local birds.	4'15"
<i>Meeting the market for indigenous birds</i> Alphious Moyo, a poultry farmer from Matabeleland North in Zimbabwe, explains why and how he rears local breeds of chicken.	3'42"

Poultry rearing

Intensive care for layers

Cue:

Intensive poultry production, whether for production of meat or eggs, requires very high standards of care. In particular, farmers must guard their birds against disease and provide suitable feed. In our next report, Eric Kadenge visits a poultry farm in his home country of Kenya, and learns some surprising things, both about the advantages and the methods for keeping laying hens.

IN: “Mr Wainaina is a poultry farmer ...

OUT: ...65% we shall sell them.”

DUR’N 6’46”

BACK ANNOUNCEMENT: Mr Wainaina was speaking to Eric Kadenge.

Transcript

Kadenge *Mr Wainaina is a poultry farmer from a small town known as Moisbridge - that is located 400km north west of Nairobi. From a humble beginning of 100 birds, he now has 5000 layers! During a recent visit, he explained to me what it takes to take care of these birds right from the day he gets his one day old chicks from the hatchery, up to the time he disposes them off when their productivity has reduced.*

Wainaina Yaah, this is now the house number 14 with a capacity of 2000 birds.

Kadenge *Two thousand birds?*

Wainaina Yes.

Kadenge *Now tell me how you start off.*

Wainaina I usually buy chicks from hatcheries then I rear them till they come to the laying. During rearing, one has to use the right food and the right vaccination because if you don't vaccinate chicks when they are young, you will have a lot of problems when they grow old. They'll keep on dying - you might not even know what exactly is killing them. So first you vaccinate them against Newcastle, fowl typhoid, fowl pox, Gumboro, and this other disease they call infectious bronchitis.

Kadenge *Other than vaccination, what other methods do you use to control the spread of diseases?*

Wainaina The workers work in individual houses. They don't move from one house to the other house. That's how we also control the diseases.

Kadenge *And now moving away from the vaccination part of it, how do you feed these birds? Where do you get the food from?*

Wainaina Well, we make our own food. We get raw material like maize bran, wheat bran, fish, cotton seed cake and sunflower seed cake and then we mix them

here locally for our use and for our neighbours. I also sell it to my neighbours to make it a bit economical because if you make so little food, it will not be economical. I have to have purchasing power.

Kadenge *So the main reason why you decided to make your own food is to reduce the cost?*

Wainaina Yaah, one point was to reduce the cost. The other one was to get quality feeds. Because sometime we might find that some food manufacturers, if they lack one material they can even do without that material but with us, we make sure that all the material must be there before we make the food.

Kadenge *And how do you tell that your birds are getting proper feed? Does it show in productivity for example?*

Wainaina Yaah, for the layers it is easy, you just note by the reduction of eggs if the food is not good. For chicks, you have to wait for sometime because you can only note that through growth. If they are retarded you will know that they are not growing well and so the food is not good.

Kadenge *And it terms of productivity, how many eggs do you get from these 5000 birds?*

Wainaina We get about 4500 eggs per day.

Kadenge *After how long do the birds stop laying and you have to get new birds?*

Wainaina Well from the day the chicks come to the farm, we finish two years and then we sell the birds. After selling the birds, we clean the house, disinfect it and then bring in the new flock, but we usually change the birds on only half the farm.

Kadenge *Now why is this?*

Wainaina First our customers will have problems with their supply and you know you have to keep your customers with a supply throughout the year for him to keep his customers hence you will be in business. The other issue is we have to time the birds to sell them when there is a good market for meat. So like December is when we sell the birds. So immediately after we sell, we bring new flock.

Kadenge *Is rearing the chicks the same as rearing the grown ups in terms of taking care of them?*

Wainaina Rearing the chicks is a bit difficult. One has to be extremely careful otherwise they will die, so many. You have to keep them warm, you have to keep them with clean water, give them light for the first three to four weeks and make sure they are all comfortable.

Kadenge *What is the importance of the light?*

Wainaina The importance of the light is that they have to eat throughout the night and throughout the day for the first three weeks so that they can get strong quickly.

- Kadenge** *Wow! That is very interesting! What else do you do in terms of ensuring that the house is clean enough for the chicks?*
- Wainaina** The house has to be raked regularly and it has to be dry - completely dry.
- Kadenge** *Now I can see that some birds have half beaks. What happened to the beaks? Is that the way they were when they were hatched?*
- Wainaina** Oh no, they were hatched with full beaks. The process of reducing the beak is called de-beaking. During the hot season like the last season we had to de-beak them because they started pecking one another and they do that until they eat the whole bird.
- Kadenge** *Now given a farm like this with all these birds, is there any other farming activity that benefits from these birds?*
- Wainaina** Yaah, there are two more activities that benefit from these birds. First I have got dairy cattle. We get our milk from those cows. They eat the chicken droppings. The other is, we grow our crops from the manure - chicken droppings - so we don't use chemical fertilizer, we use these droppings.
- Kadenge** *Now did you say that the cows eat chickens droppings, I have never heard of this!*
- Wainaina** Yaah, they do. You know when a hen eats more than enough, it doesn't digest completely so it just removes it. So the cow digests it further so it gets a lot of minerals and food from the droppings.
- Kadenge** *So they eat the droppings plain or do you mix them with other feeds?*
- Wainaina** First you have to mix to make it like it. Then after it's used to it, it will just eat it plainly.
- Kadenge** *Now let's visit one more house that I can see right here ahead us. How many birds are there in this one?*
- Wainaina** Now here we have just a few - about 700 birds.
- Kadenge** *And how old are these?*
- Wainaina** These ones are almost two years. We are going to cull them soon. Culling is the word for selling them after they have laid enough.
- Kadenge** *So right now their egg production is reducing or has reduced?*
- Wainaina** The egg production has reduced to about 68% so by the time they get to 65% we shall sell them. *End of track.*

Poultry rearing

A balanced diet for commercial poultry

Cue:

Apart from controlling diseases, another major factor in having a successful poultry business is good feeding. Obtaining feed for intensively farmed broilers and layers is by far the biggest investment in a poultry business, and it is therefore extremely important that spending on feed is cost effective. To keep the costs down, farmers who mix their own feed are advised to find locally available feedstuffs that can meet the energy, protein and mineral requirements of their birds. Most farmers provide vitamins in the form of premixed foods, bought from an animal feed supplier. Feeds need to be given in the right quantity, to avoid wastage, and with the right balance of ingredients to meet the nutritional requirements of the birds. This is detailed information that farmers need to learn from expert sources. In our next report, Lazarus Laiser finds out more about the feeds used in commercial poultry production from Dr Rashid Mwanga of Tanzania Poultry Farm Limited.

IN: "Feeds are of course a very ...
OUT: ...what I would advise farmers."
DUR'N 5'35"

BACK ANNOUNCEMENT: Dr Rashid Mwanga of Tanzania Poultry Farm Limited on some of the important factors in providing cost effective and healthy feed to poultry.

Transcript

Mwanga Feeds are of course a very important aspect in poultry production, and the costs are almost about 80% of the cost of production. And as such we are having a feed mill here, whereby we are using different ingredients like maize, cotton seed cake, sunflower cake, fish meal, wheat and bran, maize bran. We mix them in special proportions and on top of that we add some premixes, salt and lime to meet the poultry needs. Of course we establish what are the poultry needs and what are we expecting from these different feedstuffs, and we compound for them.

Laiser *So you mean that also the chicks need vitamins and minerals?*

Mwanga Oh sure. As human beings we don't differ much biologically from the chickens; they also need what we need. All the vitamins and minerals are needed by the chickens.

Laiser *Is there any balance of feed ingredients according to the changes during the life of the birds?*

Mwanga Yes. Different developmental stages also call for more of the nutrients. for instance if it is a layer chicken, the first eight weeks we shall give them starter feed. It is high in energy, high in vitamin, high in protein, because during that time there is a very rapid development. Then, at the grower stage, they don't require all that high nutrient density, therefore the feed is a bit lighter in nutrient density. During the production, they will require very high amount of calcium and phosphorus, therefore we have to provide that, otherwise they won't give us the eggs the way they are supposed to.

- Laiser** *How much food is needed per chick per day?*
- Mwanga** The chicks, during the first four weeks we give them ad lib feeding. We don't restrict them, it eats as much as it can. Especially if it is a broiler chick, we are taking care that up to the fourth week it can take up to 32 grams per day, per chick.
- Laiser** *How about water, is it important to feed the chick with water?*
- Mwanga** Yes, water is very important, and in fact they are taking twice as much water as feed – if they are taking about, say, 10 grams of feed, they will need 20 ml of water. They need it very very highly.
- Laiser** *What can you say about safety of the water that is given to the chicks?*
- Mwanga** Always give them potable water. Potable water is very very important. Your water should never be a source of infection for your birds; avoid contaminated water, be it micro-organisms or toxic chemicals, avoid that. Just as for humans, we need potable water.
- Laiser** *How about the storage of feed, which conditions?*
- Mwanga** The feed must be kept in a well-secured place, to avoid rodents, to avoid any other contaminant, or being damp, maybe a leaking roof. And it should be in a cool dry condition, so as to avoid the internal ingredients getting spoiled.
- Laiser** *Dr Mwanga, how do you keep the cost of feed down, at the same time you have the quality of the feed maintained?*
- Mwanga** In compounding your own feed you have to see what are the easily available raw materials to be considered in your formula. You can see a lot of maize being grown; it's the same maize that chickens can eat. You can realise we have so many food processors, in terms of wheat and so forth; you can get the by-products from them, and compound the feeds. We have oil industries, you therefore can get the sunflower cake and the cotton seed cake. Even groundnut cake can be used. If you are producing good quality feed at a reasonable cost, that's very important, because you'll avoid losses to the chickens. Therefore that is cost effective. Therefore you have to keep in mind the price of the raw material and the amount of that raw material to get to the end product. They should balance. But let's avoid using cheap feeds that do not reach the standards, because it will turn out to be the most expensive. That's what I would advise farmers. *End of track.*

Poultry rearing

Keeping poultry houses free of disease

Cue:

For commercial poultry farmers, the spread of disease in their flocks is the greatest danger. With birds housed close together in large numbers, diseases spread easily and quickly. While vaccination provides some protection, farmers should also do everything possible to prevent diseases entering their flocks in the first place. This requires strict management rules; for example, older and younger birds should not be kept together, visitors to the farm should not be allowed to enter the poultry houses, and sick birds should be removed immediately. Once a batch of chickens has been sold, the poultry house must be thoroughly cleaned and disinfected, and then allowed to stand empty for at least two weeks, before introducing a new batch. This helps to prevent a build up of disease on the farm.

Wilfred Allo Nkumbuh is a poultry farmer from the north west province of Cameroon. When he first went into poultry farming he experienced some serious problems with disease in his flocks. The problem was so bad that he actually decided to change the location of his farm. He told Martha Chindong about the management rules he has developed that are now keeping his birds free of disease.

IN: "The first one is that ...
OUT: ...don't have the problem of cannibalism."
DUR'N 4'34"

BACK ANNOUNCEMENT: Wilfred Allo Nkumbuh was talking to Martha Chindong.

Transcript

Nkumbuh

The first one is that, initially when we started, we did not know that it was necessary to be changing environment just like ordinary crop farmers do rotation. So when we concentrated on one spot, we realised that after a number of months or years, diseases began to build up, so that even treatment was impossible. So we moved from our first location to the second, and now we are at the third location, because we are really running away from diseases which were also rampantly following us. So now moving to the third location, where we took a lot of precautions, we have now really got a lot of success. And some other methods of keeping the chickens; like we moved from keeping chickens on the floor in deep litter, to keeping chickens now in cages, because we also realised that keeping chickens on the floor and using deep litter, in most occasions we bring in the diseases ourselves mechanically. Formerly we used to keep the chickens on the floor and we move in to attend to the chickens, thereby carrying diseases. But now we realise that keeping chickens on a raised floor, it's very convenient, because it is difficult for some of the diseases to move in the air – some of them are airborne though – but now when we keep them in cages when they are raised on a platform, the contamination is reduced. Then the third thing is that we had to create a number of brooding rooms, so when we have used one brooding room, we allow it to be fallow for two or three months before we come back to that same room. So sometimes even when diseases start building up there, they will soon die, because the host would not be there. And then the last one, which I think is most important, is the breed. Most breeds that farmers want to go with are imported breeds which are not

localised. But we have developed breeds which are local. So we finally see that we can grow chickens for up to four months without treatment, and we grow very successfully.

Chindong *In other poultry houses we see liquid, some disinfectant at the door. When you use these boxes, do you still use disinfectants?*

Nkumbuh We fumigate the whole room, because even the air can carry diseases. Many people think that you can only carry diseases with your legs, but let me tell you, without mincing words, that you can carry disease with your dress; like dust from infected chicken houses on your dresses will be transmitted. Making the doors small and difficult to pass through – with other chicken houses anybody will just want to walk in immediately to see, thereby infecting the place, and tomorrow he will come back and find nothing there again, not knowing that he or she caused the damage. So we make the doors to be uncomfortable, so that you stand and see from a distance. So we make it inconvenient both for human beings and animals to stray in freely.

Chindong *If you discover that one bird is sick in that space, can you replace it?*

Nkumbuh We normally don't advise replacement, because sometimes you may be replacing a bird which also may be having a problem without you knowing. So we advise that if you identify a bird which may be sick, take it out completely, and sometimes destroy it. Because in some occasions you are advised to take it and quarantine it, but you don't know, the problem may be airborne and it will continue spreading the problem before it finally dies.

Chindong *We have seen one chicken, there is one behind us which is so nervous, making a lot of noise more than other ones.*

Nkumbuh When I was doing feeding yesterday, I realised that that chicken was showing some nervous symptoms, which may be after the effect of some drug or some disease. So I immediately isolated it, and I want to observe it for one or two days, before deciding whether to slaughter it, to destroy it, or to send it back in to the house, if those symptoms disappear. So I did not want a situation where a symptom will be realised, you'll be careless, and then the disease spreads through.

Chindong *OK. There's one common thing with chickens – cannibalism. How do you avoid that?*

Nkumbuh For many many years we have not been having that problem, although sometimes we had the problem. But to me, I tried to trace the problem down in to the feeding regimen. There used to sometimes when I was compounding my feed and using animal blood, cow blood as one of the ingredients, and I soon realised that each time I fed chickens with cow blood, they went out for more blood, so that provoked them into eating themselves and fighting within themselves and drinking their blood. So when now I use greens and other crop products, I never had that problem. So sometimes when you move to some poultry farms, you find that they have de-beaked their chickens, and the chickens look very very not beautiful, because of the way they are debeaked. But here we do not debeak chickens, but we also avoid the feed materials that would provoke them into going for blood, so we don't have the problem of cannibalism. *End of track.*

Poultry rearing

Housing for village hens

Cue:

One of the most important aspects of keeping poultry is providing suitable housing. A good poultry house needs to offer protection for the birds from bad weather as well as from predators. It also needs to be well ventilated and easily cleaned, to reduce the risk of disease spreading in the flock. In Malawi, the UN Food and Agriculture Organisation is currently supporting poultry keeping under its Special Programme for Food Security. As part of this support, farmers have been trained in how to build poultry houses or kholas. Excello Zidana spoke to Maurice Munyenyembe, the National Expert for the programme, to find out more about the qualities of a good poultry house, and other aspects of poultry rearing.

IN: "To begin with there are recommended ...

OUT: ...fertilisers are very expensive."

DUR'N 4'55"

BACK ANNOUNCEMENT: Maurice Munyenyembe emphasising how poultry and crop production can support each other.

Transcript

Munyenyembe To begin with there are recommended technologies in how to build a poultry house which does not leak, which has enough ventilation and which is having nice bedding for the chickens. There are two types of poultry houses that have been introduced in this programme. One is the raised khola and the other one is the ground khola and both of these are ensured to have enough ventilation. The kholas which are raised they have got advantages in that the droppings of the chickens go down and can be cleared quickly and easily leaving the khola clean. That's the main advantage of having the raised kholas.

Zidana *I understand that the project is targeting the poor masses in the rural areas. Is it easy to construct these types of kholas as you are saying?*

Munyenyembe We are aware that there are problems of money and these kholas are constructed using locally available materials such as poles, grass and just earth. In the areas where farmers cannot find the special poles the ones which in some cases are very scarce we encourage farmers to mould bricks and these bricks are very easy to find. And they can have burnt bricks or sun dried bricks to build their chicken houses.

Zidana *With the problem of predators in the villages like wild cats and snakes, what do you advise farmers to construct to protect them from these predators?*

Munyenyembe There are two strategies of trying to prevent the chickens from being predated. One is to ensure that the ventilators are not below one metre from the ground. Secondly the farmers are advised to build some fences around their chicken kholas so that the predators are kept out because these chickens are fed with a free range system. So during the day time

they can go out but in the evening they are taken in, in their khola which is surrounded by a fence.

Zidana *Is there any special lesson in terms of space provided for each bird?*

Munyenyebe I can say that there is enough space given to each bird so that diseases are not rampant within their kholas.

Zidana *Do you also construct these kholas looking at providing perches or the laying spaces for the birds in the khola.*

Munyenyebe This is done for the improved birds like the Black Australorps and perches are provided for those kinds of chickens but for our local chickens we do not have perches in those kholas.

Zidana *Now you talked about disease or protecting the birds from disease spread. In the villages there is this problem of Newcastle, what arrangement is there or what mechanism is put in place to make sure that the birds are protected from the spread of these diseases?*

Munyenyebe We have done three stages of prevention and treatment of the Newcastle Disease. The first line of defence has been the training that we have given to the farmers. All farmers in the communities where we are working have been trained on the importance of vaccination of their chickens. And a vaccination regime of three monthly intervals has been put in place. Secondly the communities have selected two of their own people from each community that we are working with and those have been trained as paravets. And after training these they are able to assist their fellow farmers in ensuring that the vaccination regimes are adhered too. The project has also given a drug box which includes vaccines as well as the storage of those vaccines. So with these kinds of mechanisms we are very sure that the farmers are well protected to ensure that their chickens do not get wiped out by the Newcastle Disease.

Zidana *Lastly looking at the introduction of these poultry elements in these schemes, is there any change in terms of maybe production from crops regarding the introduction of the poultry?*

Munyenyebe As a matter of fact the packages that we have put together are complementary in the sense that indeed the products, the by-products from the crops are fed to the chickens like the vegetable leftovers, like the husks from maize bran, as well as the crops benefiting from the chickens by use of the chicken manure into their gardens. So productivity has actually been improved realising that fertilisers are very expensive. *End of track.*

Poultry Rearing

Training farmers to tackle Newcastle disease

Cue:

Newcastle disease is a killer disease in poultry flocks all over the world. Young chickens are particularly vulnerable, and outbreaks can easily cause 100% mortality. Apart from a sudden high number of deaths, symptoms of the disease include paralysis, breathing difficulties and green diarrhoea. To prevent spread of the disease all birds should be vaccinated, with chicks needing a double dose of vaccine, once during their first week and a second dose after two months. Vaccines are usually given in drinking water, but to be effective farmers must know exactly how much water to mix the vaccine with. Timing of vaccination in adult birds also needs to be carefully controlled, since outbreaks of the disease are often linked to seasonal changes in the climate. For this reason, if poultry farmers are to vaccinate their own birds, they usually need training from livestock officers. In The Gambia, such training has been provided by the Department of Livestock Services from its poultry unit in Abuko. Mr Demba Touray, a livestock assistant at the unit, recently spoke to Ismaila Senghore about the disease, and attempts by the Department to control it.

IN: “Well it’s drastic because it is a disease...”

OUT:farmers are doing it on their own.”

DUR’N 4’34”

BACK ANNOUNCEMENT: Mr. Demba Touray on how the Gambian Department of Livestock Services has been helping farmers to tackle Newcastle disease in their poultry flocks.

Transcript

Touray Well it’s drastic because it is a disease that can wipe out your whole flock, especially that of Newcastle Disease. It’s a major concern. I think it’s worldwide.

Senghore *So The Gambia is no exception when it comes to Newcastle Disease?*

Touray The Gambia is of no exception, especially now if you go to the rural areas Newcastle is everywhere. So this is a concern.

Senghore *Now at what period does Newcastle Disease affect chickens; does it come up regularly or is it always around?*

Touray Yes formerly it normally happens during the *Harmattan* but now the disease is persistent, it has no time.

Senghore *It used to be around November, December?*

Touray Yes sometimes around October, November, December but now it’s all year round.

Senghore *Could you tell me now if that’s the case what are the strategies that your department has in place to tackle major diseases like Newcastle for example?*

- Touray** Well the department is doing vaccination programmes. Every three months we are vaccinating against Newcastle and other domestic diseases. But the problem is I think there are certain gaps that are lacking especially at the farmers' level because to dispose of the dead carcasses from the disease is also a concern. So farmers will be sensitised, how to go about the disease when there is an outbreak. Proper disposal of dead carcasses, disinfecting the environment and so on will at least reduce the risk of disease.
- Senghore** *Now what are the kind of drugs that you have in stock, or the kinds of drugs that farmers demand from you?*
- Touray** Now we have all these vaccines that are concerned. We have the NCD vaccines in various doses.
- Senghore** *NCD means Newcastle Disease?*
- Touray** Newcastle Disease. We have five hundred doses, we have one thousand doses and then farmers are buying it. But I think the problem is the process of dilution also is a problem because some farmers who don't know how many litres to put for one vial [of vaccine] but technically we have our staff at the field level who are administering effectively. But for the disposal of these dead carcasses, it is a concern.
- Senghore** *What about right here in your own experimental station? What is the effectiveness of the drugs that you use? Can you say your pilot can be a model for farmers to adopt?*
- Touray** Exactly yes. My pilot, well farmers are adopting it because in here every dose of vaccine is calculated accordingly and then it is also formulated. When I say formulated it is mixed according to the number of litres. Because always it is important to calculate the number of birds, times the age, divided by the dose. It is very important. Always give the vaccine according to age. If that is done then you have no problem. So in here in Abuko we have tap water but for the Newcastle Vaccine always you have to use well water. We have to go to the well and get well water because we need water that you know has no chlorine because the chlorine might affect the organism itself and then we would have ended the vaccine, not even potential.
- Senghore** *So you mean none of your birds die of Newcastle Disease here?*
- Touray** No, none of our birds die of Newcastle because the place is well controlled. Before you enter the door you have to disinfect and then much more, the equipment that we are using. The environment is well sterilised.
- Senghore** *What about other diseases, do they affect your birds here?*
- Touray** Yes sometimes, well it's difficult to say that there is no, we don't have any other diseases, it's very very difficult. But what I am emphasising on is that you have to disinfect. Always try to disinfect all your materials. You have to make strict control of the entry and exit.
- Senghore** *Now what do you think other African countries can learn from our experience in poultry disease control?*

Touray

Well what other people can benefit from our experience is the simple method, whereby farmers now, they can vaccinate their own birds because they have been trained here, they learn a lot of practices. Now even farmers have gone beyond, that they are even ordering their own stock, their own day old chicks. They manage their own flocks through the training that they have gained from this department. So I can see that now the technology has been effectively transferred even in terms of disease control, farmers are doing it on their own. *End of track.*

Poultry Rearing

Caring for chicks

Cue:

When rearing chickens, either for eggs or meat, most poultry farmers buy young chicks, often called 'day old chicks', from a hatchery. These young birds are very vulnerable, and must be protected by the farmer against cold and disease. In particular, the chicks must be kept completely separate from adult birds on the farm, and if possible, people working with the adult birds should not enter the chicks' 'brooder house'. This will help to ensure that no diseases are transmitted to the chicks. Farmers must also pay attention to vaccination, feed and water requirements, so that the young birds grow strong and healthy.

Bob Akinwumi is a poultry farmer who keeps layer hens on his farm in Nigeria. Tunde Fatunde spoke to him about how he cares for his day old chicks

IN: "For the day old chick ...

OUT: we do not mix."

DUR'N 5'36"

BACK ANNOUNCEMENT: Bob Akinwumi was talking to Tunde Fatunde.

Transcript

Akinwumi For the day old chick you have to carve out a space that is well protected against cold. So that you put in your day old chick here with some heat source to give them the warmth for two weeks. If you go to acquire, which most of us do, from the hatchery, some hatcheries may be as far as a thousand kilometres away because some of the day old chicks come from Europe, from France for example. You assume that these birds have been put under certain stress so immediately after their arrival they are treated against stress by giving them a solution of sugar and water.

Fatunde *What next?*

Akinwumi Now the next day what we do by experience is we do not start the day old chick with the chicken feed. We crush some maize and give this to them because we realise from experience the day old chick are very susceptible to constipation when they are introduced to the new feed immediately. So you keep them on maize only.

Fatunde *For how long?*

Akinwumi Just for a day.

Fatunde *And then what next?*

Akinwumi On the third day you introduce your normal feed, the starter feed. The starter feed is different from the growing feed because they are richer in protein. And when you have the adequate formula you can put this together yourself.

Fatunde *So what do you do yourself?*

- Akinwumi** You go to the market to buy the ingredients like maize which is about 60% of your feed mixture. You get the Soya bean cake, cotton seed cake, these are to boost the protein content. You add some fishmeal, which you also get from the market. You add some pulverised seashells or animal bone, crushed animal bone to improve the calcium content of your feed. You add some salt for the mineral and then you put in some additives which are already premixed from the pharmacy shop, from the veterinary shop.
- Fatunde** *Now you do that for what space of time?*
- Akinwumi** The starter feed is for just a couple of weeks between the second day to about two weeks after. Two weeks after they are removed from this special room where they are kept warm and put in your normal rearing deep litter shed and then you can start them off with your growers feed.
- Fatunde** *What do you mean by grower feeds?*
- Akinwumi** Grower feed is the feed they feed on to develop before they start laying which is also a little different in formulation to the starter.
- Fatunde** *Yes what is the difference and what is grower feed.....*
- Akinwumi** The difference is that the birds can now tolerate.....
- Fatunde** *They can easily digest?*
- Akinwumi** They can digest easily the cotton seed which you do not put in a larger quantity for the day old chick.
- Fatunde** *Now lets talk about diseases. These day old chicks, are they susceptible to diseases?*
- Akinwumi** Yes poultry is very very susceptible to diseases and there are many kinds of diseases.
- Fatunde** *Yes and what are these diseases?*
- Akinwumi** The common diseases around here are the Gumboro, the Newcastle, the Infectious Bronchitis which is the infection of the breathing system. There is the coccidiosis which is easily transmitted from one bird to the other through their droppings and the fowl pox.
- Fatunde** *Do you have to wait for these diseases to manifest themselves or you go ahead and do preventive?*
- Akinwumi** Usually a poultry farmer should prevent his birds [getting sick] from day one.
- Fatunde** *Ok now what are these.....*
- Akinwumi** As soon as the day old chicks come in from the second day onwards there is a table to be followed, a table that tells you the kind of vaccine that should be used periodically for your birds to prevent them from contracting these common diseases.

- Fatunde*** *Yes and is it you who applies these vaccines and drugs or do you do it with the help of.....*
- Akinwumi** Yes, yes they are easily applied because most of these vaccines are - some of them are injectable - but you can also go for liquid that you can push into their drinking water and makes it very easy.
- Fatunde*** *Do you also boost the immunity or you boost the energy of these day old chicks with vitamins?*
- Akinwumi** Yes what you usually do in poultry, since you are subjecting your birds to all kinds of vaccines it is assumed that these vaccines are another source of stress for the birds. So to help the animal to overcome this stress every time you introduce a vaccine you cover it up by giving them vitamins.
- Fatunde*** *Have you had any cause to mix old and new birds together?*
- Akinwumi** No this is never done.
- Fatunde*** *Why?*
- Akinwumi** We avoid doing this in my farm because usually you find out that the old birds have the tendency of claiming the landlordship of the area where they are and therefore the tendency is to attack the new birds. That's the first thing. The second thing will be, it will not be advisable if even if they are tolerable because you risk transferring of infection from the old birds to the smaller birds, or to the new birds.
- Fatunde*** *So you don't do it?*
- Akinwumi** We do not mix. *End of track.*

Poultry rearing

Vaccination for village chickens?

Cue:

While the vaccination of poultry against diseases such as Newcastle disease is a standard practice on commercial farms, among village chicken keepers it is much less common. The reasons for this are not hard to guess. In the first place, vaccines tend to be expensive, and only available in large doses suitable for hundreds or even thousands of birds. Secondly, until recently Newcastle disease vaccines have needed to be kept at a low temperature in order to remain effective. This has meant that vaccination programmes have needed to maintain a cold chain, a system for keeping the vaccine cool, while being transported to villages, making the process much more difficult and expensive to manage.

So how can an effective system for vaccinating village chickens be managed? That was the question that Chris Kakunta asked when he spoke to David Daka, Chief Animal Husbandry Officer at the Zambia Institute of Animal Health.

IN: “One of the diseases you are ...

OUT: ...So you must feed well.”

DUR’N 5’22”

BACK ANNOUNCEMENT: David Daka of the Zambia Institute of Animal Health with some advice on village chicken rearing.

Transcript

Daka One of the diseases you are looking at could be Newcastle disease, which can wipe almost 80-90% of the flock, you lose everything. So this is the challenge.

Kakunta *How can small scale farmers effectively manage a vaccination programme so that their chickens, village chickens do not die of Newcastle?*

Daka Before I come to your question, we must know that Newcastle disease is a viral disease. Once birds are attacked, it means that there is no treatment, they just have to die. Those that survive will have problems in growth rates. So we must do everything possible to prevent the outbreak of Newcastle disease in our birds. But if it breaks out, the impact will be reduced if you did vaccinations. Now, for you to have an effective vaccination programme, when you have chicks which hatch, these should be vaccinated at three days old, and you can also give them another dose at six weeks. As they grow, and you hear about the outbreak of Newcastle disease here and there, you can continue vaccinating, but at three days, six weeks, eighteen weeks, you can vaccinate your birds.

Kakunta *And what vaccines are we talking about here?*

Daka There are various types depending on the brands. Usually it looks like a tablet, you dissolve it. The most popular one is [administered] by drinking water. But the challenge in Newcastle vaccination, is that you have maintain a cold chain. You must not expose the vaccine to heat or sun rays, because you will destroy the vaccine and you will render it useless – it loses its

potency. But I understand there is a Newcastle vaccine which is stable under ambient temperature. It means you don't need any cold chain, and this vaccine was established in Australia. We have tried to bring it, maybe it's the cost, but it is the most effective vaccine. Anybody can carry it and mix it with water and vaccinate the chickens under normal temperature. As of now, what we do is, most of these vaccination campaigns for chickens is now thrown to the private sector. We have a lot of vets in Zambia; whoever wishes to vaccinate chickens, he can just buy the vaccine and they go in the villages and vaccinate. This is what we normally do.

Kakunta *But this is a very expensive venture for an individual, Mr Daka.*

Daka Unfortunately you have to invest for you to gain more. This is what we normally do. We have privatised our veterinary services, so we have invited most private vets to come on board and take up some of these clinical issues in our livestock sector. The only problem I see is that these doses, there may be in 1000 doses, it means you have to vaccinate 1000 chickens. So this is the problem, a farmer has got only maybe five chickens, but even then in the villages you can team up, you share the vaccine, you can vaccinate 1000 chickens. So it wouldn't be expensive.

Kakunta *Apart from protecting these birds against disease, what other important factors do you consider are paramount for successful raising of village chickens?*

Daka You know, people complain that village chickens do not lay eggs during the rainy season. But somebody would assume that during the rainy season is when we have a lot of food. Unfortunately during the rainy season in this country we don't have enough food for chickens. So my advice is that, when you are approaching the rainy season, like in November, farmers should keep enough maize bran, soya bean cakes, which they can mix to feed the chickens during the rainy season. They will be able to lay and grow and fatten, so that you don't face any problem.

Kakunta *And that can also be part of your prevention against diseases?*

Daka Of course. A better fed animal will resist diseases. If your animal is not well fed, it is weak, the immunity goes down. Just like you, if you are not well fed whatever drug you may take it will not work in your body, because it is not complemented by good nutrition. So you must feed well. *End of track.*

Poultry rearing

Good feeding for guinea fowl

Cue:

Our next report comes from Blantyre in Malawi, where Patrick Mphaka reports on the growing popularity of guinea fowl among village poultry keepers. One reason for this popularity is a reported resistance of guinea fowl in Malawi to a major poultry disease, Newcastle disease, which every year has a devastating impact on unvaccinated poultry flocks. While this reported resistance may reflect a greater hardiness in guinea fowl to some common diseases, guinea fowl are, in fact vulnerable to Newcastle disease, in common with nearly all poultry species, and those keeping guinea fowl should follow appropriate steps to keep their birds disease free.

IN: “Traditionally, popular domestic birds...

OUT: ...Newcastle which troubles our chickens.”

DUR’N 5’00”

BACK ANNOUNCEMENT: Village headman Magombo Ngondo ending that report on a community guinea fowl project in his village. Please note that while in his experience, guinea fowl are more resistant to Newcastle disease, veterinary advice suggests that guinea fowl are, in fact, vulnerable to the disease, in common with other poultry.

Transcript

Mphaka

Traditionally, popular domestic birds kept by most people here are chickens. These have their advantages, and, naturally, their disadvantages. One of the most menacing problems for the poor lot of chicken keepers is the seasonal outbreak of Newcastle disease. It is a big problem for most people because though easily preventable when appropriate vaccination is supplied to the birds, most of them can not afford it. The result is death en masse of chickens once or twice each year.

Due to this problem, most people are turning their attention to alternative birds. To this end, the introduction of guinea fowls in some areas has become handy. To date, there are no locally known diseases which attack guinea fowls. This quality directly solves the problem most bird keepers have been having with chickens.

Since the retail price of guinea fowls is higher than that of chickens, it has not been easy for most people to start rearing guinea fowls. There are some instances, however, where Non-Governmental organizations have intervened in introducing the birds to some communities. One such community is in Magombo Ngondo village in Traditional Authority Kuntaja in Blantyre district. The community here was given some twenty birds to keep on community level and that as the birds multiply, they can start sharing amongst themselves. I paid the village headman a visit to learn more about the feeding practices, among other relevant issues.

Ngondo

[Vernac] As far as feeding is concerned, we provide them with food two or three times each day within the stall before we release them to fend for themselves outside. In addition, we also ensure that the water containers which you see there are cleaned and filled with clean water each day. We feed

these guinea fowls with maize bran, sorghum, or sometimes we look for white ants, so that we are sure that when they are going to fend for themselves, they have already had enough food.

Mphaka *You told me earlier that sometimes these birds are 100% stall fed, and sometimes, like this period, they are on semi-free range. Would you elaborate on that?*

Ngondo We stall feed them 100% when we have just planted various crops in the fields. This is done to ensure that the planted seeds grow without being eaten away by the guinea fowls. As you know, these birds are very notorious with seed, especially maize. Once the seedlings are of good health, and can not be destroyed anymore by the guinea fowls, we then put them on semi-free range.

Mphaka *These guinea fowls belong to the community. How does the community assist you in taking care of the guinea fowls in terms of feeding them and other things?*

Ngondo The community assists in several ways. They take turns in making sure that the inside and outside of the guinea fowl house is clean. They are also the ones who do the actual feeding of the guinea fowls.

Mphaka *Would you like to tell me the difference in terms of production of eggs between the times when you are giving them food inside their house, and when you are allowing them to go out free range?*

Ngondo They lay eggs more continuously when they are on semi-free range. We think this is because they are able to supplement on the food we give them inside the stall. Again, we think that the space and fresh air which they enjoy outside, give them more freedom which make them healthier.

Mphaka *What would you say is the advantage of rearing guinea fowls over chickens?*

Ngondo Guinea fowls are better than chickens when it comes to diseases. Guinea fowls are resistant to Newcastle which troubles our chickens. *End of track.*

Poultry rearing

Cross-breeding local chickens

Cue:

Local village chickens that scavenge for their food are, in many parts of Africa, the most important form of livestock, particularly among poor households. Unlike the exotic birds kept in intensive poultry systems, local chickens can generally survive with very little financial input, providing small amounts of eggs, meat and income. However, there is also potential for village chicken keepers to improve the productivity of their birds. Better management of housing and feeding can keep birds healthy and speed up their growth. And by careful cross-breeding between different local varieties, some poultry farmers are even managing to produce animals that can lay more, and larger eggs. Childwell Nyirenda is an animal breeder with the Zambian Ministry of Agriculture, Food and Fisheries who specialises in crossing local breeds of chicken. He spoke to Daniel Sikazwe about the importance of village chickens in Zambia, and how cross-breeding can improve poultry productivity.

IN: "We conducted a survey in ...
OUT: ...we can survive on that."
DUR'N 4'15"

BACK ANNOUNCEMENT: Childwell Nyirenda on the benefits to be had from cross-breeding local village chickens.

Transcript

- Nyirenda** We conducted a survey in some districts of North western Province. The survey has shown that chicken is the most pre-eminent livestock, owned by about 76% of the households, with an average of about 10 in each household, which means it's the most popular livestock, is the chicken. Chickens play the most important role among livestock species in the social, economic and socio-cultural life of the people. Most of the households depend on chickens for subsistence, selling them very easily by the roadside, farmgate, market and so forth. Chicken is here known as 'bank on hand'.
- Sikazwe** *Meaning that you can easily sell it and then get the money, and it's easy to rear as well.*
- Nyirenda** Yes. However, productivity of the chickens is so low in the tropics. A successful transition from the extensive to the semi-intensive production system is needed to improve productivity.
- Sikazwe** *In terms of management, where do you think things have gone wrong, especially if you compare with those who are keeping broilers?*
- Nyirenda** The most important thing is feed and housing. There is no accommodation, proper accommodation for village chickens. Some of them sleep in the house where even human beings sleep; that's the problem.
- Sikazwe** *And then what about feed, what happens? People in the villages, or people in areas where village chickens are being kept don't go to buy feed and then give it to the chickens, they just allow the chickens to roam about?*

- Nyirenda** Yes they are scavengers. During the dry season like this one, they can be given a bit of maize, grains. These grains are given to them at times, but they should not be competing with the farmer himself, the peasant farmer. What we need it suitable, cheap management and a source of feed for them – the local feed. Now when it comes to improvement of local chicken production, it's very important that one. The goal is to make accessible to peasant farmers genetically productive breeds of chickens. For instance, some look like guinea fowls. Guinea fowl like type of local chicken, crossed with local chocolate looking type will produce breeds that will lay almost 25 or more eggs, instead of nine or twelve only. Normally with birds from Europe, the weight of the eggs is 57 grams, but ours it's only 30 grams. But at times, when we cross breed them, the weight goes up.
- Sikazwe** *Oh, so you are saying that the local chickens, the so called village chickens lay very few eggs, maybe nine to twelve?*
- Nyirenda** Very few, nine to twelve, and the hatchability is also low, that is why we are saying productivity is very low. But if we cross the breeds, the local breeds, among themselves – we know how to select them, the selection is very important – some can produce, the offshoots can be producing maybe 25, 29 which cannot compare with European breeds that produce up to 250. But ours can produce up to 25, given a low level of management, then it's OK, we can survive on that. *End of track.*

Poultry Rearing

Meeting the market for indigenous birds

Cue:

Despite the growth of commercial poultry farms rearing highly productive chickens for expanding urban markets, local, indigenous chickens continue to be popular among many consumers. Local chickens that are kept in free range conditions are widely regarded as having better flavour than mass-produced birds, and less likely to have any kind of contamination. Hence the rearing of indigenous chickens continues to be a good way for small-scale farmers to earn income, and if farmers are taking the right steps to keep their birds healthy and well-fed, the business can be profitable. In our next report, Busani Bafana talks to Alphious Moyo, a farmer from Matabeleland North province in Zimbabwe who takes a keen interest in crossing local breeds of chickens to produce hardy, productive birds. Speaking through a translator, Mr. Moyo begins by explaining the advantages of raising indigenous chickens.

IN: "The advantages of raising indigenous chickens are
OUT: feed their families and send their children to school."
DUR'N 3'42"

BACK ANNOUNCEMENT: Mr. Alphious Moyo, a poultry farmer from Matabeleland North in Zimbabwe.

Transcript

Moyo [Vernacular] The advantages of raising indigenous chickens are: one, they mature early. The second one is that they are cost effective, meaning that there are minimum overheads required or things like electricity, you don't need electricity to raise them. You don't need to go to the market as people are the ones who come and buy them at home. Feeding these chickens is also not expensive as they do not consume much and I always supplement their feeding by giving them crushed grain, sunflower which I grow in my field and sorghum. The other great advantage is that they are resistant to diseases. For an example flux and lice. Normally when we have got a problem with such diseases we treat them by using naturally grown aloe, which we add to their drinking water.

Bafana *Have you received any technical assistance for your chicken breeding project?*

Moyo [Vernac] Yes I have received assistance from the Agritex Officers. They have taught me that my chicken, my fowl runs should always be clean so as to reduce diseases and pests. I have also learnt to look out for symptoms of diseases by examining chicken feathers, eyes, the beak and the position of the wings and this can also show me that my chicken is not healthy. Normally if the chicken is not healthy I use my aloe treatment to take corrective measures. If my aloe treatment does not do any good to my chickens I always consult the Agritex Officers for further treatment of my chickens.

Bafana *There are concerns by some urban residents about chickens that are raised commercially. Do you think your free-range chickens are considered organic and therefore more healthy?*

- Moyo** [Vernac] Yes I believe my chickens are very healthy than those that are raised commercially because they are free-range, they exercise and they are fed on natural grains.
- Bafana** *With the high price of beef is there a market for your chickens and approximately how many do you sell a month?*
- Moyo** [Vernac] Yes I have got a ready market. Per month at times I sell about ten chickens and this numbers varies depending on the demand. Normally when there are functions, like wedding functions or funerals a lot of chickens are bought and the profit, normally I plough half of my profits back into the business while the other profit I normally buy things for my family.
- Bafana** *Would you then encourage other farmers to go into chicken breeding?*
- Moyo** [Vernac] Yes I will encourage a lot of farmers to raise these chickens as the demand is getting higher and higher on a daily basis. And these chickens they help to complement their diets as well as they might get a lot of money so that they can feed their families and send their children to school. *End of track.*